

## **REMARKS**

### **Amendment to the Specification**

In the specification, an amendment has been made that addresses a typographical error in paragraph [0056]. No new matter has been added. As described in the as-filed application, the deployable boom truss 60 is shown in Fig. 1C and not in Fig. 2.

### **Amendments to the Claims**

The Final Office Action mailed June 1, 2009, has been received and reviewed. Claims 1 through 25, and 41 are currently pending in the application. Claims 4 through 6, 11, 12, and 14 through 19 have been withdrawn from consideration. Claim 41 is allowed. Claims 1 through 3, 8 through 10, and 20 through 25 stand rejected. Claims 7 and 13 have been objected to as being dependent upon rejected base claims, but the indication of allowable subject matter in such claims is noted with appreciation. Applicants propose to amend claim 1 through 3, 7 through 10, 13, 20 through 22, and 25, and respectfully request reconsideration of the application as proposed to be amended herein. No new matter has been added.

Support for the current claim amendments may be found, for example, in the as-filed application at paragraphs [0054] and [0065], and FIGS. 1C and 3.

### **35 U.S.C. § 102(e) Anticipation Rejections**

#### **Anticipation Rejection Based on U.S. Patent No. 6,910,304 to Warren**

Claims 1 through 3, 8 through 10, 21, and 25 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Warren (U.S. Patent No. 6,910,304). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Unless a single prior art reference describes “all of the limitations claimed” and “all of the limitations [are] arranged or combined in the same way as recited in the claim, it cannot be said

to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 U.S.C. § 102.” *Net MoneyIN Inc. v. VeriSign Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008). A single prior art reference must “clearly and unequivocally” describe the claimed invention “without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference.” *Id.* (citing *In re Arkley*, 455 F.2d 586, 587 (C.C.P.A. 1972)).

Applicants respectfully assert that claims 1 through 3, 8 through 10, 21, and 25 are not anticipated by Warren under 35 U.S.C. § 102(e) because Warren does not describe each and every element of independent claim 1, as currently amended. In particular, Warren does not describe a deployable truss “*wherein at least one of the plurality of column members comprises a column assembly having at least one tapered end*, the column assembly including at least three strut members, each strut member of the column assembly being connected to each other strut member of the column assembly at a first end of the column assembly and at a second end of the column assembly,” as recited in independent claim 1.

Warren describes a foldable member including a first and second structural section biased to have an open configuration. *Warren*, Abstract. In particular, referring to FIGS. 1 through 4, Warren describes a foldable member 10 including first and second longitudinally aligned tube sections 12, 14 made of a material which can be folded flat. *Id.* at col. 4, lines 50-54. The tube sections 12, 14 are biased to normally have an open configuration. *Id.* The longitudinally aligned tube sections 12, 14 preferably include longitudinally extending stiffeners 16 formed integrally with the tube sections 12, 14 to add to the cross sectional area of the tube sections 12, 14 thus increasing their stiffness in the deployed state. *Id.* at col. 2, lines 45-51, 62-67; col. 4, lines 56-58. A hinged connection is provided between the longitudinally aligned tube sections 12, 14 by discrete hinges 60 that connect the stiffeners of tube section 12 to the corresponding stiffeners of tube section 14. *Id.* at col. 4, lines 60-64.

In the embodiment shown in FIG. 11, the foldable member 10' still includes two sections 12' and 14' each section including the longitudinally extending stiffeners 16. *Id.* at col. 6, lines 8-15. However, instead of material forming the tube sections 12, 14, flexible struts 90, 92 interconnect the spaced stiffeners 16 of the first and second structural sections 12', 14'. *Id.*

In the embodiment shown in FIG. 12, the foldable member 10" also includes two sections 12" and 14" each section including the longitudinally extending stiffeners 102, 104, 106, and 108.

*Id.* at col. 6, lines 16-23. However, the tube sections 12" and 14" are not circumferentially continuous, instead, each section 12" and 14" contains a seam 110. *Id.* at col. 6, lines 23-27.

In the embodiment shown in FIGS. 20 and 21, a collapsible truss structure 300 made of "a plurality of foldable members 302, 304, and 306 configured as shown in FIGS. 5-10" spans between two panels 308 and 310. *Id.* at col. 7, lines 41-46.

In the outstanding Office Action, the Examiner asserts that "Warren (figures 11-12, 20-21) discloses deployable truss comprising: a plurality of column (302, 304, 306, 104, 102, 106, 108) members connected at their ends to form a deployable truss that forms a rigid structure in a deployed state . . . including a plurality of at least three strut members (figure 11-12)." Applicants note that the Examiner appears to assert that both the foldable members 302, 304, and 306 shown in FIGS. 20 and 21 and the longitudinally extending stiffeners 102, 104, 106, and 108 shown in FIG. 12 describe a column member. Applicants further note that the Examiner appears to assert that both the flexible struts 90, 92 shown in FIG. 11 and the longitudinally extending stiffeners 102, 104, 106, and 108 shown in FIG. 12 describe the strut members.

Applicants respectfully assert, however, that Warren does not describe a truss structure ***"wherein at least one of the plurality of column members comprises a column assembly having at least one tapered end."*** Warren only describes two longitudinally aligned tube sections having longitudinally aligned stiffeners that line up to allow tube sections to be folded against each other. As illustrated by FIGS. 11, 12, 20, and 21, the longitudinally aligned tube sections do not have a tapered end. Moreover, the longitudinally extending stiffeners do not have a tapered end. Therefore, Warren does not describe a column assembly having at least one tapered end because Warren only describes tube sections and stiffeners having ends uniform with the tube sections or stiffeners.

As Warren does not expressly or inherently describe each and every element set forth in independent claim 1, Applicants assert that claim 1 is not anticipated by Warren and respectfully request that the Examiner withdraw the rejection of independent claim 1 under 35 U.S.C. § 102(e).

Applicants additionally assert that each of dependent claims 2, 3, 8 through 10, 21, and 25 is allowable at least because each depends from claim 1, which is allowable. Therefore, Applicants assert that claims 2, 3, 8 through 10, 21, and 25 are not anticipated by Warren and respectfully

request that the Examiner withdraw the rejection of dependent claims 2, 3, 8 through 10, 21, and 25 under 35 U.S.C. § 102(e).

Regarding dependent claim 9, Applicants additionally assert that Warren does not describe a deployable truss “wherein the spacer connects the at least three strut members of the column assembly near a midpoint between the first and second ends of the column assembly,” as recited in dependent claim 9.

As discussed above, Warren describes a foldable member including flexible struts and longitudinally extending stiffeners. Warren does not describe that the struts or stiffeners are connected by a spacer near a midpoint between the first end and the second end of the foldable member. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of dependent claim 9 under 35 U.S.C. § 102(e) for this additional reason.

Regarding dependent claim 25, Applicants additionally assert that Warren does not describe a deployable truss “wherein each end of the column assembly is tapered,” as recited in dependent claim 25.

As discussed above, Warren describes a foldable member including longitudinally aligned tube sections and longitudinally extending stiffeners. Neither the longitudinally aligned tube sections nor the longitudinally extending stiffeners have a tapered end. Therefore, Applicants respectfully request that the Examiner withdraw the rejection of dependent claim 25 under 35 U.S.C. § 102(e) for this additional reason.

### **35 U.S.C. § 103(a) Obviousness Rejections**

#### **Obviousness Rejection Based on U.S. Patent No. 6, 910,304 to Warren**

Claims 20 and 22 through 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Warren (U.S. Patent No. 6,910,304). Applicants respectfully traverse this rejection, as hereinafter set forth.

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974); *see also* MPEP § 2143.03. Additionally, the Examiner must determine whether there is “an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-1741, 167 L.Ed.2d 705, 75 USLW

4289, 82 U.S.P.Q.2d 1385 (2007). Further, rejections on obviousness grounds “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id* at 1741, quoting *In re Kahn*, 441, F.3d 977, 988 (Fed. Cir. 2006). Finally, to establish a *prima facie* case of obviousness there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Furthermore, the reason that would have prompted the combination and the reasonable expectation of success must be found in the prior art, common knowledge, or the nature of the problem itself, and not based on the Applicant's disclosure. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006); MPEP § 2144. Underlying the obvious determination is the fact that statutorily prohibited hindsight cannot be used. *KSR*, 127 S.Ct. at 1742; *DyStar*, 464 F.3d at 1367.

Claims 20 and 22 through 24 depend from independent claim 1 and include each of the elements and limitations recited therein. Applicants assert that Warren at least fails to teach, suggest, or otherwise render obvious a deployable truss “*wherein at least one of the plurality of column members comprises a column assembly having at least one tapered end*,” as recited in independent claim 1 as currently amended.

For the same reasons discussed above in relation to independent claim 1, Warren does not teach or suggest each and every claim limitation of claim 1. Therefore, claims 20 and 22 through 24 are not obvious at least because claim 1, from which each of claims 20 and 22 through 24 depends, is not obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03.

### **Objections to Claims 7 and 13/Allowable Subject Matter**

Applicants note the indication of allowable subject matter with appreciation. Applicants respectfully assert, however, that independent claim 1, from which claims 7 and 13 depend, is allowable over the cited prior art references. Therefore, Applicants request that the objection to claims 7 and 13 be withdrawn.

### **Allowable Claims**

The Examiner has indicated claim 41 is allowable. Applicants again note the indication of allowable subject matter with appreciation.

**Withdrawn Claims**

It is noted that claims 4 through 6, 11, 12, and 14 through 19 are withdrawn from consideration as directed to a nonelected invention. However, such claims should be rejoined and allowed in conjunction with the allowance of claims 1 through 3, 7 through 10, 13, 20 through 25, and 41.

### ENTRY OF AMENDMENTS

The proposed amendments to claims 1 through 3, 7 through 10, 13, 20 through 22, and 25 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application. Further, the amendments do not raise new issues or require a further search. Finally, if the Examiner determines that the amendments do not place the application in condition for allowance, entry is respectfully requested upon filing of a Notice of Appeal herein.

### CONCLUSION

Claims 1 through 25, and 41 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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